

STIC Database Tracking Number: 103032*

TO: James Seal Location: 4D11 Art Unit: 2131

Thursday, September 04, 2003

Case Serial Number: 08/895493

From: David Holloway Location: EIC 2100

PK2-4B30

Phone: 308-7794

david.holloway@uspto.gov

Search Notes

Dear Examiner Seal,

Attached please find your search results for above-referenced case. Please contact me if you have any questions or would like a re-focused search.

David





STIC EIC 2900 Search Request Form 103032

Today's Date: 9/4/03	What date would you like to use to limit the search? Priority Date: Other:
	Thority Bate. Other.
Name James SEal	Format for Search Results (Circle One):
AU 2(31 Examiner # 769	PAPER DISK EMAIL
	Where have you searched so far?
Room # 400 Phone 308	USP DWPI EPO JPO ACM IBM TDB
Serial # _ 0 8 / 895 493	
	Other
Is this a "Fast & Focused" Search Reque A "Fast & Focused" Search is completed in 2-3 meet certain criteria. The criteria are posted in http://ptoweb/patents/stic/stic-tc2100.htm.	est? (Circle One) YES NO hours (maximum). The search must be on a very specific topic and EIC2100 and on the EIC2100 NPL Web Page at
include the concepts, synonyms, keywords, acro	other specific details defining the desired focus of this search? Please onyms, definitions, strategies, and anything else that helps to describe background, brief summary, pertinent claims and any citations of
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STIC Searcher Holloway	Phone 308-7784
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Descript
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                AU=(BESTLER, C? OR BESTLER C?)
S1
                RD (unique items)
S2
       8:Ei Compendex(R) 1970-2003/Aug W4
File
         (c) 2003 Elsevier Eng. Info. Inc.
      35:Dissertation Abs Online 1861-2003/Aug
File
         (c) 2003 ProQuest Info&Learning
File 202: Info. Sci. & Tech. Abs. 1966-2003/Jul 31
         (c) 2003, EBSCO Publishing
      65: Inside Conferences 1993-2003/Aug W5
         (c) 2003 BLDSC all rts. reserv.
File
       2:INSPEC 1969-2003/Aug W4
         (c) 2003 Institution of Electrical Engineers
      94:JICST-EPlus 1985-2003/Aug W5
         (c) 2003 Japan Science and Tech Corp(JST)
File 111:TGG Natl.Newspaper Index(SM) 1979-2003/Sep 02
         (c) 2003 The Gale Group
File 233: Internet & Personal Comp. Abs. 1981-2003/Jul
         (c) 2003, EBSCO Pub.
       6:NTIS 1964-2003/Aug W5
         (c) 2003 NTIS, Intl Cpyrght All Rights Res
File 144: Pascal 1973-2003/Aug W4
         (c) 2003 INIST/CNRS
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
     34:SciSearch(R) Cited Ref Sci 1990-2003/Aug W5
File
         (c) 2003 Inst for Sci Info
File
     62:SPIN(R) 1975-2003/Jul W3
         (c) 2003 American Institute of Physics
     99:Wilson Appl. Sci & Tech Abs 1983-2003/Jul
File
         (c) 2003 The HW Wilson Co.
     95:TEME-Technology & Management 1989-2003/Aug W3
File
         (c) 2003 FIZ TECHNIK
File 275: Gale Group Computer DB(TM) 1983-2003/Sep 03
         (c) 2003 The Gale Group
     47:Gale Group Magazine DB(TM) 1959-2003/Aug 25
File
         (c) 2003 The Gale group
File
     75:TGG Management Contents(R) 86-2003/Aug W3
         (c) 2003 The Gale Group
File 636:Gale Group Newsletter DB(TM) 1987-2003/Sep 03
         (c) 2003 The Gale Group
     16:Gale Group PROMT(R) 1990-2003/Sep 03
         (c) 2003 The Gale Group
File 624:McGraw-Hill Publications 1985-2003/Sep 03
         (c) 2003 McGraw-Hill Co. Inc
File 484:Periodical Abs Plustext 1986-2003/Aug W5
         (c) 2003 ProQuest
File 613:PR Newswire 1999-2003/Sep 04
         (c) 2003 PR Newswire Association Inc
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File 141:Readers Guide 1983-2003/Jul
         (c) 2003 The HW Wilson Co
File 239:Mathsci 1940-2003/Oct
         (c) 2003 American Mathematical Society
File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
File 696:DIALOG Telecom. Newsletters 1995-2003/Sep 03
         (c) 2003 The Dialog Corp.
File 553: Wilson Bus. Abs. FullText 1982-2003/Jul
         (c) 2003 The HW Wilson Co
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Sep 03
         (c) 2003 The Gale Group
File 674: Computer News Fulltext 1989-2003/Aug W5
         (c) 2003 IDG Communications
      88:Gale Group Business A.R.T.S. 1976-2003/Sep 04
         (c) 2003 The Gale Group
File 369: New Scientist 1994-2003/Aug W4
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2/9/3 (Item 1 from Rec: 65)
DIALOG(R)File 65:Inside Conferences
(c) 2003 BLDSC all rts. reserv. All rts. reserv.

01749347 INSIDE CONFERENCE ITEM ID: CN017788570

Headend Management of MPEG Transport Streams From Multiple Sources Bestler, C.

CONFERENCE: National Cable Television Association-Annual convention; 45th CABLE -CONVENTION NATIONAL CABLE TELEVISION ASSOCIATION, 1996; 45th P: 266-273

NCTA, 1996

7

ISBN: 0940272245

LANGUAGE: English DOCUMENT TYPE: Conference Papers and programme

CONFERENCE EDITOR(S): Rutkowski, K.

CONFERENCE SPONSOR: National Cable Television Association

CONFERENCE LOCATION: Los Angeles, CA

CONFERENCE DATE: Apr 1996 (199604) (199604)

BRITISH LIBRARY ITEM LOCATION: 2943.950200

DESCRIPTORS: cable television; NCTA

2/9/4 (Item 2 from file: 65)

DIALOG(R)File 65:Inside Conferences

(c) 2003 BLDSC all rts. reserv. All rts. reserv.

01537299 INSIDE CONFERENCE ITEM ID: CN015263060

The Need for a Single Consolidated Conditional Access Control System for Analog and Hybrid Analog/Digital Addressable Decoders
Bestler, C.

CONFERENCE: National Cable Television Association-Annual convention CABLE -CONVENTION NATIONAL CABLE TELEVISION ASSOCIATION, 1995; 44th P: 247-257

The Association, 1995

ISBN: 0940272237

LANGUAGE: English DOCUMENT TYPE: Conference Papers

CONFERENCE EDITOR(S): Rutkowski, K.

CONFERENCE SPONSOR: National Cable Television Association

CONFERENCE LOCATION: Dallas, TX

CONFERENCE DATE: May 1995 (19950) (19950)

BRITISH LIBRARY ITEM LOCATION: 2943.950200

DESCRIPTORS: NCTA; cable television

S ' et	Items	Descrip		
S1	3659	(CATEGOR? OR PROGRAM? OR CONDITIONAL()ACCESS? OR PERMIT)(2-		
	N)	(KEYPAIR? OR KEY? ?)		
S2	44882	CATV OR VOD OR VIDEO()ON()DEMAND? OR CABLE(N)(TV OR TELEVI-		
		ON? OR BROADCAST?) OR SATELLITE? OR DIGITAL()(RIGHT? OR PRI-		
		LEGE?) OR (RIGHT? OR COPYRIGHT? OR INTELLECTUAL()PROPERT?)(-		
		(MANAGE? OR ADMINIST? OR CONTROL?)		
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S11	117	S7 OR S8 OR S9		
S13	8	S12 NOT PY>1994		
S14	7	S13 NOT PD=19940401:19970401		
S15	7	S14 NOT PD=19970401:20010401		
S16	7	S15 NOT PD=20010401:20030909		
S17	1	S16 AND IC=H04N?		
S18	1	PA=BESTLER?		
S19	6	AU=BESTLER?		
S20	0	S19 AND IC=H04N?		
S21 S22	0 89	S20 AND (S6 OR S2) S1(S)(S2 OR S6)(S)S4		
S23	55	S22 AND IC=H04N?		
S24	38	S23 NOT AD=19940401:19970401		
S25	12	S24 NOT AD=19970401:20010401		
S26	9	S25 NOT AD=20010401:20030905		
S27	58	S1(S)S6		
S28	37	S27 (S) S4		
S29	0	S28 NOT S22		
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'26/5,K/2 (Item 2 fcm file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.

00472875

System for maintaining scrambling security in a communication network
System zur Bewahrung der Verschlusselungssicherheit eines Nachrichtennetzes
Systeme pour le maintien de la securite du codage dans un reseau de
communication

PATENT ASSIGNEE:

GENERAL INSTRUMENT CORPORATION OF DELAWARE, (1783080), 181 West Madison Street, Chicago, Illinois 60602, (US), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)

INVENTOR:

Esserman, James Neil, 3844 Radcliffe Lane, San Diego, California 92122, (US)

Heller, Jerrold A., 4932 Rancho Viejo Drive, Del Mar, California 92014, (US)

LEGAL REPRESENTATIVE:

Hoeger, Stellrecht & Partner (100381), Uhlandstrasse 14 c, 70182 Stuttgart, (DE)

PATENT (CC, No, Kind, Date): EP 485887 A2 920520 (Basic)

EP 485887 A3 921209 EP 485887 B1 970806

APPLICATION (CC, No, Date): EP 91118977 911107;

PRIORITY (CC, No, Date): US 614940 901116

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: H04N-007/16

CITED PATENTS (EP A): EP 127381 A; WO 8806826 A; US 4991208 A; US 5029207 A CITED REFERENCES (EP A):

IEEE INTERNATIONAL CONFERENCE on CONSUMER ELECTRONICS, 6-8 June, 1990, Rosemont, Illinois, US, pages 316-317; P.J.Y. PERYET: 'Defeating pay-TV pirates with smart cards'

INTERNATIONAL CONFERENCE on SECURE COMMUNICATION SYSTEMS, 22-23 February, 1984, IEE, London, GB, pages 66-69; A.G. MASON: 'A pay-per-view conditional access system for DBS by means of secure over-air credit transmissions';

ABSTRACT EP 485887 A2

A secure communication network serves a plurality of terminals (30, 34, 38) grouped into different security categories. Each terminal includes a replaceable security element (32, 36, 40) containing a security algorithm specific to the security category to which the terminal is assigned. Upon the breach of a particular security version, the security elements in the affected category are replaced with new elements containing a different algorithm. The security elements are relatively low cost, and can be replaced on an as needed or periodic basis to maintain system security. (see image in original document)

ABSTRACT WORD COUNT: 95

LEGAL STATUS (Type, Pub Date, Kind, Text):

Lapse: 20000202 B1 Date of lapse of European Patent in a

contracting state (Country, date): GR

19970806, IT 19970806,

Application: 920520 A2 Published application (Alwith Search Report

; A2without Search Report)

Search Report: 921209 A3 Separate publication of the European or

International search report

Examination: 930428 A2 Date of filing of request for examination:

930227

*Assignee: 940803 A2 Applicant (transfer of rights) (change): GI

CORPORATION (1739540) 2200 Byberry Road Hatboro, Pennsylvania 19040 (US) (applicant

designated states:

AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE)

*Assignee: 940921 A2 Applicant (transfer of rights) (change):

GENERAL INSTRUMENT CORPORATION OF DELAWARE (1783080) 181 West Madison Street Chicago,

Illinois 60602 (US) (applicated designated

states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IT;LI;NL;SE)
950405 A2 Date of despatch of first examination report:

950220

Grant: 970806 B1 Granted patent
Oppn None: 980729 B1 No opposition filed

Examination:

Lapse: 991020 B1 Date of lapse of European Patent in a

contracting state (Country, date): IT

19970806,

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS B (English) 9708W1 1075 CLAIMS B (German) 9708W1 1060 CLAIMS B (French) 9708W1 1225 SPEC B (English) 9708W1 2991 Total word count - document A Total word count - document B 6351 Total word count - documents A + B 6351

INTERNATIONAL PATENT CLASS: H04N-007/16

- ...SPECIFICATION signals without any security element installed.

 The present invention can be advantageously used in a **satellite** television system that transmits scrambled television signals for receipt by authorized subscribers having the necessary **satellite** reception equipment. In a **satellite** television system marketed by the VideoCipher Division of General Instrument Corporation, details of which are...
- ...key" signal is generated by processing an initialization vector signal in accordance with the data **encryption** standard ("DES") algorithm upon the algorithm being keyed by a common **category key** signal. A unique scrambling key stream is generated by processing the initialization vector signal in...
- ...television signal is scrambled in accordance with the scrambling key stream. A plurality of unique encrypted category key signals individually addressed to different selected subscriber descramblers are generated by encrypting the initial common category key signal in accordance with the DES algorithm upon the algorithm being keyed by a plurality...
- ...with that descrambler. The scrambled television signal, the initialization vector signal, and the plurality of encrypted category key signals are broadcast to the descramblers. DES algorithms are employed at the descramblers to reproduce the encryption key stream and descramble the television signal in accordance therewith. As noted above, each descrambler...
- ...which unit key is stored in a secure memory for use in reproducing the common category key signal when the descrambler is addressed by its unique encrypted category key signal.

As indicated, each terminal in accordance with the present invention is supported by its...

'26/5,K/3 (Item 3 m file: 348) DIALOG(R) File 348: EUROPEAN PATENTS (c) 2003 European Patent Office. All rts. reserv.

00467788

Information processing apparatus with replaceable security element Informationsverarbeitungsgerat mit auswechselbarem Sicherheitselement Dispositif de traitement d'information avec element de securite remplacable PATENT ASSIGNEE:

General Instrument Corporation, (2532981), 101 Tournament Drive, Horsham, PA 19044, (US), (Proprietor designated states: all) INVENTOR:

Esserman, James Neil, 3844 Radcliffe Lane, San Diego, California 92122,

Moroney, Paul, 1249 Avocet Court, Cardiff, California 92007, (US) LEGAL REPRESENTATIVE:

Hoeger, Stellrecht & Partner (100381), Uhlandstrasse 14 c, 70182 Stuttgart, (DE)

PATENT (CC, No, Kind, Date): EP 471373 A2 920219 (Basic)

> EP 471373 A3 920729 EP 471373 B1 991006

APPLICATION (CC, No, Date): EP 91113757 910816;

PRIORITY (CC, No, Date): US 568990 900817

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: H04N-007/167

CITED PATENTS (EP A): WO 8500491 A; WO 8500491 A; GB 2151886 A; GB 2151886 A; EP 194769 A; EP 132401 A; EP 127381 A

CITED PATENTS (EP B): EP 127381 A; EP 132401 A; EP 194769 A; WO 85/00491 A; GB 2151886 A

ABSTRACT EP 471373 A2

A field upgradeable security system deciphers signals received from a communication network. An information processor (10) includes a receptacle for receiving a replaceable security element (12). The replaceable security element generates a working key (WK) necessary to the operation of the information processor. The working key is communicated to the information processor encrypted under a secret key (A(M)). The information processor decrypts the encrypted working key for use in deciphering a received communication signal. Additional layers of encryption $(A(C),\ U(M),\ U(C))$ can be added to the communications between the information processor and security element to increase the level of security. (see image in original document)

ABSTRACT WORD COUNT: 107

NOTE:

Lapse:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

000920 B1 No opposition filed: 20000707 Oppn None:

920219 A2 Published application (Alwith Search Report Application:

; A2without Search Report)

030212 B1 Date of lapse of European Patent in a Lapse:

contracting state (Country, date): AT 19991006, BE 19991006, CH 19991006, LI

19991006, NL 19991006, SE 19991006,

001227 B1 Date of lapse of European Patent in a Lapse:

contracting state (Country, date): AT 19991006, BE 19991006, CH 19991006, LI

19991006,

001213 B1 Date of lapse of European Patent in a Lapse:

contracting state (Country, date):

19991006, CH 20000111, LI 20000111,

001025 B1 Date of lapse of European Patent in a

contracting state (Country, date): BE

19991006,

001220 B1 Date of lapse of European Patent in a Lapse:

contracting state (Country, date): AT 19991006, BE 19991006, CH 20000111, LI

20000111,

Lapse: 02060 B1 Date of lapse of European Patent in a contracting state (Country, date): AT 19991006, BE 19991006, CH 19991006, LI

19991006, SE 19991006,

Search Report: 920729 A3 Separate publication of the European or

International search report

Examination: 921202 A2 Date of filing of request for examination:

921006

*Assignee: 940803 A2 Applicant (transfer of rights) (change): GI

CORPORATION (1739540) 2200 Byberry Road Hatboro, Pennsylvania 19040 (US) (applicant

designated states:

AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE)

*Assignee: 940921 A2 Applicant (transfer of rights) (change):

GENERAL INSTRUMENT CORPORATION OF DELAWARE (1783080) 181 West Madison Street Chicago, Illinois 60602 (US) (applicant designated

states: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE)

Examination: 950308 A2 Date of despatch of first examination report:

950120

*Assignee: 981021 A2 Applicant (transfer of rights) (change):

NextLevel Systems, Inc. (2532980) 101 Tournament Drive Horsham, PA 19044 (US)

(applicant designated states:

AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE)

*Assignee: 981021 A2 Previous applicant in case of transfer of

rights (change): GENERAL INSTRUMENT CORPORATION OF DELAWARE (1783080) 181 West Madison Street

Chicago, Illinois 60602 (US) (applicant

designated states:

AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE)

*Assignee: 981028 A2 Applicant (transfer of rights) (change):

General Instrument Corporation (2532981) 101

Tournament Drive Horsham, PA 19044 (US)

(applicant designated states:

AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE)

*Assignee: 981028 A2 Previous applicant in case of transfer of

rights (change): NextLevel Systems, Inc. (2532980) 101 Tournament Drive Horsham, PA 19044 (US) (applicant designated states:

AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; NL; SE)

Grant: 991006 B1 Granted patent

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS B (English) 9940 1704 CLAIMS B 9940 1516 (German) CLAIMS B (French) 9940 1945 SPEC B (English) 9940 4762 Total word count - document A 0 Total word count - document B 9927 Total word count - documents A + B 9927

INTERNATIONAL PATENT CLASS: H04N-007/167

- ...SPECIFICATION the data necessary to enable the security element to generate the working keys required by **crypto** 24 will be transmitted via satellite or other means (e.g., telephone), to enable authorized...
- ...In the event remote initialization is not used, information not frequently broadcast (i.e., the category key) can be sent ahead of time and stored by the information processor for later transfer...

26/5,K/4 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00364842

Reproduction of secure keys by using distributed key generation data Reproduktion von geschutzten Schlusseln durch Erzeugungsdaten von verteilten Schlusseln

Reproduction de cles protegees en utilisant des donnees de generation de cles distribuees

PATENT ASSIGNEE:

GENERAL INSTRUMENT CORPORATION OF DELAWARE, (1403171), 2200 Byberry Road, Hatboro, Pennsylvania 19040, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;NL;SE)

INVENTOR:

Bennett, Christopher John, 4820 Vista Street, San Diego Californiia 92116 , (US)

Moroney, Paul, 1249 Avocet Court, Cardiff-By-The-Sea California 92007, (US)

Harding, Michael V., 1462 Oliver Avenue Apt. C., San Diego California 92121, (US)

LEGAL REPRESENTATIVE:

Blatchford, William Michael et al (48801), Withers & Rogers 4 Dyer's Buildings Holborn, London EC1N 2JT, (GB)

PATENT (CC, No, Kind, Date): EP 343805 A2 891129 (Basic)

EP 343805 A3 910313 EP 343805 B1 971001

APPLICATION (CC, No, Date): EP 89304575 890505;

PRIORITY (CC, No, Date): US 200111 880527

DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: HO4N-007/167; HO4L-009/00

CITED PATENTS (EP A): WO 8500491 A; EP 132401 A; EP 132401 A; EP 164983 A; EP 194769 A; EP 127381 A

CITED REFERENCES (EP A):

INTERNATIONAL BROADCASTING CONVENTION, Brighton, 21st - 25th September 1984, 229/85, pages 282-288, IBA, GB; A.G. MASON: "A pay-per-view conditional access system for DBS by means of secure over-air credit transmission having a short cycle time";

ABSTRACT EP 343805 A2

A key security system provides for the reproduction of secure keys by using distributed key generation data and a distributed encrypted prekey. The system encrypts program key generation data (17) with a program key prekey (18) in accordance with a first encryption algorithm to produce the program key (20); processes the program key (20) to produce a keystream (25); and processes an information signal (26) with the keystream to produce a scrambled information signal (27). The program key prekey (18) is encrypted with a category key (22) in accordance with a second encryption algorithm to produce an encrypted program key prekey (23). The scrambled information signal (27) the program key generation data (17) and the encrypted program key prekey (23) are distributed to descramblers. The descrambler within the key security system decrypts the distributed encrypted program key prekey (23) with the category key (22) in accordance with the second encryption algorithm to reproduce the program key prekey (18); encrypts the distributed program key generation data (17) with the reproduced program key prekey (18) in accordance with the first encryption algorithm to reproduce the program key (20); processes the reproduced program key (20) to reproduce the keystream (25); and processes the distributed scrambled information signal (27) with the reproduced keystream (25) to descramble the distributed scrambled information signal. The key generation data includes authorization data that must be processed by the authorization processor (35) in the descrambler in order to enable the descrambler. The use of authorization data as key generation data protects the authorization data from spoofing attacks. When more data must be protected than a single operation of the encryption algorithm can support, then additional data blocks are protected by chaining the system, wherein the output from one stage forms part of the input to the next. The key generation data for the program key includes a sequence number securely associated with the category key to thereby "timelock" program key reproduction to the use of a current category key and thus prevent an attack based upon the use of an obsolete category key.

ABSTRACT WORD COUNT: 351

LEGAL STATUS (Type, Pub Date, Kind, Text):

20000126 B1 Date of lapse of European Patent in a Lapse:

contracting state (Country, date): GR

19971001, IT 19971001,

Application: 891129 A2 Published application (Alwith Search Report

; A2without Search Report)

Search Report: 910313 A3 Separate publication of the European or

International search report

Examination: 910626 A2 Date of filing of request for examination:

910429

Examination: 930421 A2 Date of despatch of first examination report:

930308

*Assignee: 950517 A2 Applicant (transfer of rights) (change):

GENERAL INSTRUMENT CORPORATION OF DELAWARE

(1403171) 2200 Byberry Road Hatboro,

Pennsylvania 19040 (US) (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;NL;SE)

950517 A2 Previous applicant in case of transfer of *Assignee:

rights (change): GENERAL INSTRUMENT CORPORATION (264771) 767 Fifth Avenue New York New York

10153 (US) (applicant designated states: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; NL; SE), GENERAL INSTRUMENT CORPORATIONOF DELAWARE (1917890) 767

Fifth Avenue New York New York 10153 (US)

(applicant designated states:

AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; NL; SE)

Grant: 971001 B1 Granted patent

Oppn None: 980923 Bl No opposition filed

Lapse: 991020 Bl Date of lapse of European Patent in a

contracting state (Country, date): IT

19971001,

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY: Available Text Language Update Word Count

CLAIMS B 9709W4 2635 (English) CLAIMS B 9709W4 2237 (German)

CLAIMS B (French) 9709W4 3168 SPEC B 9709W4 8849

(English) 0

Total word count - document A

Total word count - document B 16889 16889

Total word count - documents A + B

INTERNATIONAL PATENT CLASS: H04N-007/167 ...

... SPECIFICATION The first encryption unit 88 encrypts the preencrypted program prekey prekey 96 with the CATV category key 83a in accordance with a first encryption algorithm, such as the DES algorithm, to produce an **encrypted** program prekey prekey 97. Spotbeam mask data indicates geographical regions where descrambling of the broadcast television signal is authorized. The encrypted program prekey prekey 97 in included in the CATV program rekey message 78.

The second encryption unit 89 encrypts the program prekey generation data...0-6.

The decryption unit 168 decrypts the encrypted prekey prekey 97 with the CATV category key 83a in accordance with the first algorithm used by the encryption unit 88 in the first control computer (Figure 5A) to provide reproduce the preencrypted program...

```
(CATEGOR? OR PROGRAM? OR CONDITIONAL() ACCESS? OR PERMIT) (2-
S1
         4116
             N) KEY? ?
                CATV OR VOD OR VIDEO()ON()DEMAND? OR CABLE(N)(TV OR TELEVI-
S2
      2134069
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S6
             GITAL () MEDIA?
S7
           29
                S1 AND S2 AND S3
          100
                S1 AND S5
S8
S9
                S1 AND S6
      1563308
S10
                S5 AND (S2 OR S6)
S11
         2611
                S10 AND S4
                S11 AND (KEY? ? OR KEYPAIR?)
S12
          982
S13
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                S5(3N)(S2 OR S6)
S14
        28062
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                S4 AND S14
S15
                S1 AND S15
S16
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          365
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S17
S18
          41
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                S18 OR S8 OR S9 OR S7
S19
S20
          135
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       8:Ei Compendex(R) 1970-2003/Aug W4
         (c) 2003 Elsevier Eng. Info. Inc.
      35:Dissertation Abs Online 1861-2003/Aug
File
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File 202: Info. Sci. & Tech. Abs. 1966-2003/Jul 31
         (c) 2003, EBSCO Publishing
      65:Inside Conferences 1993-2003/Aug W5
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         (c) 2003 BLDSC all rts. reserv.
File
       2:INSPEC 1969-2003/Aug W4
         (c) 2003 Institution of Electrical Engineers
      94:JICST-EPlus 1985-2003/Aug W5
File
         (c) 2003 Japan Science and Tech Corp(JST)
File 111:TGG Natl.Newspaper Index(SM) 1979-2003/Sep 02
         (c) 2003 The Gale Group
File 233:Internet & Personal Comp. Abs. 1981-2003/Jul
         (c) 2003, EBSCO Pub.
File
       6:NTIS 1964-2003/Aug W5
         (c) 2003 NTIS, Intl Cpyrght All Rights Res
File 144: Pascal 1973-2003/Aug W4
         (c) 2003 INIST/CNRS
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File
      34:SciSearch(R) Cited Ref Sci 1990-2003/Aug W5
         (c) 2003 Inst for Sci Info
File
      62:SPIN(R) 1975-2003/Jul W3
         (c) 2003 American Institute of Physics
      99:Wilson Appl. Sci & Tech Abs 1983-2003/Jul
File
         (c) 2003 The HW Wilson Co.
      95:TEME-Technology & Management 1989-2003/Aug W3
File
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Description

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Set

Items

24/5/11 (Item 3 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03553853 INSPEC Abstract Number: C90015000

Title: File protection with operating system security

Author(s): Chang-Kyun Shin; Eun-Jae Choi

Journal: Korea Information Science Society Review vol.7, no.5 p. 35-41

Publication Date: 1989 Country of Publication: South Korea

CODEN: CHKWEN

Language: Korean Document Type: Journal Paper (JP)

Treatment: General, Review (G); Practical (P)

Abstract: Discusses access controls; secrecy; integrity; the security kernel; access matrix model; protection domains; access rights; lock/ key mechanism; revocation; encryption; decryption; cryptographic sealing; information flow control; security classification; security clearance; the principle of least privilege or 'need to know'; reference monitors; tamper-proof systems; penetration, intrusion and insider attacks; violations; vulnerability; and clandestine users. (14 Refs)

Subfile: C

Descriptors: operating systems (computers); security of data

Identifiers: file protection; operating system security; access controls; secrecy; integrity; security kernel; access matrix model; protection domains; access rights; lock/key mechanism; revocation; encryption; decryption; cryptographic sealing; information flow control; security classification; security clearance; least privilege; need to know; reference monitors; tamper-proof systems; penetration; intrusion; insider attacks; violations; vulnerability; clandestine users

Class Codes: C6150J (Operating systems); C6130 (Data handling techniques); C0310D (Installation management)

24/5/26 (Item 6 from file: 233)
DIALOG(R)File 233:Internet & Personal Comp. Abs.
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00236735 91DM03-005

Valkyrie undoes Clipper

Lima, Tony

DBMS , March 1, 1991 , v4 n3 p32, 2 Pages

ISSN: 1041-5173 Languages: English

Document Type: Software Review

Hardware/Software Compatibility: Clipper Summer '87

Geographic Location: United States

Presents a favorable review of Valkyrie (\$995), a reverse compiler for Clipper Summer '87, from Programming Solutions Inc. of Salt Lake City, UT (801). Says it changes an .exe file into the code that was compiled. Release 1.0 cannot handle program overlays; your program must be compiled into a single .exe file. Also handles symbol tables up to about 48K. Cautions that any procedures stored in separate program files are includes in the main program file after compiling. Says that you can use Valkyrie only on programs that you own or have rights to because it requires that a special key be present in the errorsys.prg file of the program you want to decompile. You can add this key to your program before you compile them. (v1)

Descriptors: Compiler; Database; Software Review Identifiers: Valkyrie; Programming Solutions

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             SION? OR BROADCAST?) OR SATELLITE? OR DIGITAL()(RIGHT? OR PRI-
             VILEGE?) OR (RIGHT? OR COPYRIGHT? OR INTELLECTUAL()PROPERT?) (-
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S15
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S17
           10
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                S1(S)S2(S)S3(S)S4
S18
            Ω
File 387: The Denver Post 1994-2003/Sep 03
         (c) 2003 Denver Post
File 492:Arizona Repub/Phoenix Gaz 19862002/Jan 06
         (c) 2002 Phoenix Newspapers
File 494:St LouisPost-Dispatch 1988-2003/Sep 01
         (c) 2003 St Louis Post-Dispatch
File 498:Detroit Free Press 1987-2003/Sep 02
         (c) 2003 Detroit Free Press Inc.
File 631:Boston Globe 1980-2003/Sep 03
         (c) 2003 Boston Globe
File 633:Phil.Inquirer 1983-2003/Sep 02
         (c) 2003 Philadelphia Newspapers Inc
File 638: Newsday/New York Newsday 1987-2003/Sep 02
         (c) 2003 Newsday Inc.
File 640:San Francisco Chronicle 1988-2003/Sep 04
         (c) 2003 Chronicle Publ. Co.
File 641: Rocky Mountain News Jun 1989-2003/Sep 01
         (c) 2003 Scripps Howard News
File 702:Miami Herald 1983-2003/Aug 29
         (c) 2003 The Miami Herald Publishing Co.
File 703:USA Today 1989-2003/Sep 03
         (c) 2003 USA Today
File 704: (Portland) The Oregonian 1989-2003/Sep 03
         (c) 2003 The Oregonian
File 713:Atlanta J/Const. 1989-2003/Sep 04
         (c) 2003 Atlanta Newspapers
File 714: (Baltimore) The Sun 1990-2003/Sep 03
         (c) 2003 Baltimore Sun
File 715: Christian Sci. Mon. 1989-2003/Sep 04
         (c) 2003 Christian Science Monitor
File 725: (Cleveland) Plain Dealer Aug 1991-2003/Sep 03
         (c) 2003 The Plain Dealer
File 735:St. Petersburg Times 1989- 2003/Sep 03
         (c) 2003 St. Petersburg Times
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Description

Set

Items

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S1	2126	(CATEGOR? OR PROGRAM? OR CONDITIONAL() ACCESS? OR PERMIT) (2-						
	N) KEY? ?							
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		LEGE?) OR (RIGHT? OR COPYRIGHT? OR INTELLECTUAL()PROPERT?)(-						
a 2	,	(MANAGE? OR RIGHT?)						
S3	869221 OR	CONTENT? OR SUBJECT OR SUBJECTS OR CATEGORY OR CATEGORIES?						
S4	9	S1(3N)S3 AND S2						
S5	-	S1 (3N) S3						
S 6	15	S5 AND (ENCRYPT? OR ENCIPHER? OR CIPHER? OR CYPHER? OR CRY-						
		OGRAPH? OR CRYPTO? ?)						
S 7	10	S6 NOT S4						
S8	10	S7 NOT AD=19940401:19970401						
S9	8	S8 NOT AD=19970401:20000401						
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S12	53	S1 AND S11						
S13	10	S12 AND (ENCRYPT? OR ENCIPHER? OR CIPHER? OR CYPHER? OR DE-						
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S14	2925	PPV OR PAY() PER() VIEW? OR VOD OR VIDEO() ON() DEMAND? OR DIG- AL() MEDIA?						
S15	5	SI AND S14						
S16	5							
S17	5	IDPAT (sorted in duplicate/non-duplicate order)						
S18	5	IDPAT (primary/non-duplicate records only)						
	-	Oct 1976-2003/May(Updated 030902)						
		03 JPO & JAPIO						
File		t WPIX 1963-2003/UD, UM &UP=200356						
		03 Thomson Derwent						

18/5/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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012924171 **Image available**
WPI Acc No: 2000-096007/200008

XRPX Acc No: N00-074094

Information delivery system such as video - on - demand system for cable TV network, direct broadcast satellite video system

Patent Assignee: LUCENT TECHNOLOGIES INC (LUCE)

Inventor: HEER D N; MAHER D P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 5999629 A 19991207 US 95550910 A 19951031 200008 B

Priority Applications (No Type Date): US 95550910 A 19951031

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5999629 A 11 H04L-009/00

Abstract (Basic): US 5999629 A

NOVELTY - Each of an information protection system access control system and subscriber terminals include a security module. Security modules (30,50) independently generate a symmetrical encryption key as a function of unique serial number and public key associated with other security modules. A **program** encryption **key** received from a security module (30) is decrypted using a symmetrical key.

DETAILED DESCRIPTION - An unique serial number (Sid) is generated in response to receipt of a particular stimuli via an input terminal. The serial number is used to uniquely identify the security module and for generating a public key (KPid) as a function of unique serial number. The serial number and **program** encryption **key** are encrypted using device unique key and the encrypted results are stored in a memory. An INDEPENDENT CLAIM is also included for the method of operating securing module.

USE - For cable TV network, direct broadcast satellite video system. Other examples are facsimile, telephone system.

ADVANTAGE - Encrypts unique identification **key** and **program** encryption **key** using device encryption key and stores the encrypted result in memory internal to security module, thus securing the keys against misappropriation.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of information delivery system.

Security modules (30,50)

pp; 11 DwgNo 1/5

Title Terms: INFORMATION; DELIVER; SYSTEM; VIDEO; DEMAND; SYSTEM; CABLE; TELEVISION; NETWORK; DIRECT; BROADCAST; SATELLITE; VIDEO; SYSTEM

Derwent Class: W01; W02

International Patent Class (Main): H04L-009/00

International Patent Class (Additional): H04K-001/00

File Segment: EPI

10/5/3 (Item 3 from ite: 350)
DIALOG(R)File 350: Derwent WPIX
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004156519

WPI Acc No: 1984-302058/198449

XRPX Acc No: N84-225228

Television scrambling with remote selective de-scrambling - is for subscription TV system using several levels of encryption algorithm Patent Assignee: CABLE HOME COMMUNICATION CORP (CABL-N); TITAN CORP (TITA-N); CABLE/HOME COMMUNICATION (CABL-N); MA-COM LINKABIT (MACO-N) Inventor: GILHOUSEN K S; MOERDER K E; NEWBY C F; GILHOUSER K S Number of Countries: 013 Number of Patents: 012

Patent Family:

Patent No	Kind	Date	App	licat No	Kind	Date	Week	
EP 127381	Α	19841205	ΕP	84303320	A	19840516	198449	В
AU 8428707	A	19841129					198504	
NO 8402067	Α	19841227					198507	
DK 8402554	Α	19841128					198513	
JP 60057783	A	19850403	JP	84106346	A	19840525	198520	
US 4613901	A	19860923	US	83498800	A	19830527	198641	
EP 127381	В	19880406					198814	
DE 3470368	G	19880511					198820	
CA 1242793	A	19881004					198844	
CA 1264848	A	19900123					199008	
JP 2096489	Α	19900409	JΡ	84330725	A	19840525	199020	
DK 167332	В	19931011	DK	842554	Α	19840524	199346	

Priority Applications (No Type Date): US 83498800 A 19830527 Cited Patents: GB 1590579; US 3789131; US 4245246; US 4292650 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 127381 A E 82

Designated States (Regional): BE DE FR GB IT NL SE

EP 127381 B E

Designated States (Regional): BE DE FR GB IT NL SE DK 167332 B \pm H04N-007/167 patent DK 8402554

Abstract (Basic): EP 127381 A

A working key signal is generated by processing an initialisation vector signal in accordance with the DES algorithm on the algorithm being keyed by a common category key signal or a signal having a predetermined relationship to this signal. A unique encryptation key stream is generated on processing the initialisation vector signal in accordance with DES algorithm on the algorithm being keyed by the working key signal. The TV signal is scrambled in accordance with the key stream.

A number of unique encrypted category key signals individually addressed to selected subscribers descrambles are operated by processing the initial common category key signal in accordance with the DES algorithm. The algorithm is keyed by a number of different unit key signals unique to different selected descramblers. The scrambled signal, initialisation vector signal and encrypted category key signals are broadcast to the descramblers. The descrambler uses a corresponding tier of DES algorithms to reproduce the encryptation key stream which is used to descramble the TV signal. Each descrambler has its unique unit key signal stored in a secure memory. This is for use in reproducing the common category key signal when the descrambler is addressed by its unique encrypted **key** signal. category

ADVANTAGE - The system is highly secure against unauthorised descrambling. At least three levels of encryptation algorithms are used in the scrambling and descrambling.

Title Terms: TELEVISION; SCRAMBLE; REMOTE; SELECT; DE; SCRAMBLE; SUBSCRIBER; TELEVISION; SYSTEM; LEVEL; ENCRYPTION; ALGORITHM

Derwent Class: W02

International Patent Class (Main): H04N-007/167

International Patent Class (Additional): H04K-001/00; H04L-009/00;

H04N-007/16 File Segment: EPI

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(Item 1 from 1e: 350) 10/5/1 DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 008067359 **Image available** WPI Acc No: 1989-332471/198945 XRPX Acc No: N89-253153 Secure keys reproduction using distributed key generation data - includes sequence number securely associated with category key to time lock program key reproduction to use of current category key Patent Assignee: GEN INSTR CORP (GENN); GEN INSTR CORP DELAWARE (GENN); GEN INSTR CORP OF DELAWARE (GENN) Inventor: BENNETT C J; HARDING M V; MORONEY P Number of Countries: 018 Number of Patents: 011 Patent Family: Patent No Kind Date Applicat No Kind US 4864615 19890905 US 88200111 Α 19880527 198945 EP 343805 19891129 EP 89304575 Α 19890505 198948 AU 8935272 Α 19891130 199003 NO 8902080 Α 19891227 199006 DK 8902594 Α 19891128 199007 С 19890505 CA 1331790 19940830 CA 598801 Α 199436 В 19950308 IE 891504 19890509 IE 62913 Α В1 EP 343805 19971001 EP 89304575 A 19890505 199744 NO 301255 A 19890524 В1 19970929 NO 892080 199746 A DE 68928355 Ε 19971106 DE 628355 19890505 199750 EP 89304575 Α 19890505 ES 2107411 Т3 19971201 EP 89304575 Α 19890505 199803 Priority Applications (No Type Date): US 88200111 A 19880527 Cited Patents: 1.Jnl.Ref; A3...9111; EP 127381; EP 132401; EP 164983; EP 194769; No-SR.Pub; US 4712238; WO 8500491 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes US 4864615 23 Α A E H04N-007/167 EP 343805 Designated States (Regional): AT BE CH DE ES FR GB GR IT LI NL SE EP 343805 B1 E 32 H04N-007/167 Designated States (Regional): AT BE CH DE ES FR GB GR IT LI NL SE NO 301255 B1 H04L-009/14 Previous Publ. patent NO 8902080 DE 68928355 Ε H04N-007/167 Based on patent EP 343805 H04N-007/167 Based on patent EP 343805 ES 2107411 Т3 CA 1331790 С H04L-009/02 IE 62913 В H04N-007/167

Abstract (Basic): US 4864615 A

F

The key security system includes a circuit for encrypting first-key generation data with a first-key prekey in accordance with a first encryption algorithm to produce a first key. The first key is processed to produce a key stream and an information signal and is processed with the key stream to produce a scrambled information signal. The first-key prekey is encrypted with a second key in accordance with a second encryption algorithm to produce an encrypted first-key prekey. The scrambled information signal is the first-key generation data and the encrypted -first-key prekey are distributed and a descrambler includes device for providing the second key.

The distributed **encrypted** first-key prekey is decrypted with the second key in accordance with the second **encryption** algorithm to reproduce the first-key prekey. The distributed first-key generation data is **encrypted** with the reproduced first-key prekey in accordance with the first **encryption** algorithm to reproduce the first key. The reproduced first key is processed to reproduce the key stream. The distributed scrambled information signal is processed with the reproduced key stream to descramble the distributed scrambled information signal.

 $\ensuremath{\mathsf{USE}}$ - Descrambling and decrypting systems in communications network

Title Terms: SECURE; KEY; PRODUCE; DISTRIBUTE; KEY; GENE. TE; DATA; SEQUENCE; NUMBER; SECURE; ASSOCIATE; CATEGORY; KEY; TIME; LOCK; PROGRAM; KEY; REPRODUCE; CURRENT; CATEGORY; KEY

Derwent Class: W01

7

International Patent Class (Main): H04L-009/02; H04L-009/14; H04N-007/167 International Patent Class (Additional): H04L-009/00; H04N-007/16

File Segment: EPI

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     47: Gale Group Magazine DB(TM) 1959-2003/Aug 25
File
         (c) 2003 The Gale group
     75:TGG Management Contents(R) 86-2003/Aug W3
File
         (c) 2003 The Gale Group
File 636:Gale Group Newsletter DB(TM) 1987-2003/Sep 03
         (c) 2003 The Gale Group
     16:Gale Group PROMT(R) 1990-2003/Sep 03
         (c) 2003 The Gale Group
File 624:McGraw-Hill Publications 1985-2003/Sep 03
         (c) 2003 McGraw-Hill Co. Inc
File 484:Periodical Abs Plustext 1986-2003/Aug W5
         (c) 2003 ProQuest
File 613:PR Newswire 1999-2003/Sep 04
         (c) 2003 PR Newswire Association Inc
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File 141:Readers Guide 1983-2003/Jul
         (c) 2003 The HW Wilson Co
File 239:Mathsci 1940-2003/Oct
         (c) 2003 American Mathematical Society
File 370:Science 1996-1999/Jul W3
         (c) 1999 AAAS
File 696:DIALOG Telecom. Newsletters 1995-2003/Sep 03
         (c) 2003 The Dialog Corp.
File 553: Wilson Bus. Abs. FullText 1982-2003/Jul
         (c) 2003 The HW Wilson Co
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Sep 03
         (c) 2003 The Gale Group
File 674: Computer News Fulltext 1989-2003/Aug W5
         (c) 2003 IDG Communications
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17/3,K/24 (Item 9 fr file: 16)
DIALOG(R)File 16:Gale Gr PROMT(R)
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01440558 Supplier Number: 41726871 (USE FORMAT 7 FOR FULLTEXT)

Show Developments Hit on All Fronts

Multichannel News, v0, n0, p35

Dec 10, 1990

Language: English Record Type: Fulltext Abstract

Document Type: Magazine/Journal; Trade

Word Count: 856

ABSTRACT:

By GARY KIM

ANAHEIM, Calif. -- It would be hard to name any **key category** of **cable TV** equipment left untouched by the headlong rush of advanced new technology. Indeed, from the ubiquitous...

ANAHEIM, Calif. -- It would be hard to name any **key category** of **cable TV** equipment left untouched by the headlong rush of advanced new technology. Indeed, from the ubiquitous...